

APPENDIX B
FEDERAL COMMUNICATIONS COMMISSION
ET Docket No. 93-7

Appendix B

These advertisements for cable descrambler equipment were clipped from national magazines and leading newspapers and represent only a very small sampling of the offerings available from distributors.

The Wall Street Journal
January 6, 1993

BUSINESS EQUIPMENT

CABLE TV EQUIPMENT

Converters/Descramblers, no monthly charges, great prices, call for free catalog.

1-800-

The Boston Globe
March 17, 1993

MISCELLANEOUS

CABLE TV EQUIPMENT

Converters and accessories, great prices, no monthly charges. Call for free catalogue. 1-800-

Northwest Airlines Traveler
February, 1993

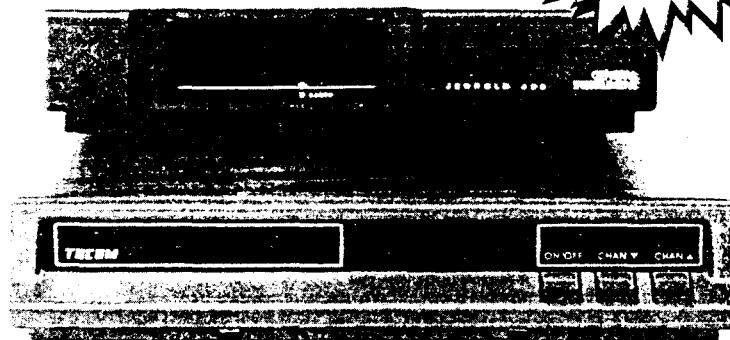
USA Today
November 22, 1991

Electronics

Cable TV Converters/MTS Stereo Decoders/Jerrold-Zenith-Oak Scientific Atlanta/All in one Remotes Electronics • 800

CABLE T.V. CONVERTERS

WHY
PAY A
HIGH
MONTHLY
FEE?



All JERROLD, OAK, HAMLIN, ZENITH, SCIENTIFIC ATLANTA, PIONEER and all specialized cable equipment available for shipment within 24 hours. 30 Day Guarantee. QUANTITY DISCOUNTS AVAILABLE. MC/VISA or C.O.D. telephone orders accepted.

Send self-addressed stamped envelope (60c postage) for FREE CATALOG

ELECTRONICS INC.

Illinois 60110

Note: Decoders and Descramblers must not be used without authorization by your local cable operator.

INFORMATION/ORDERS

1-800

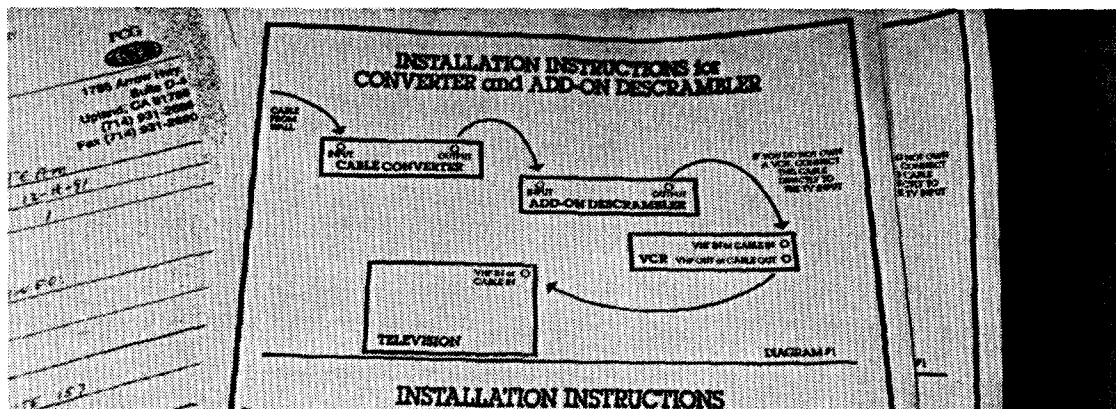
NO ILLINOIS ORDERS ACCEPTED

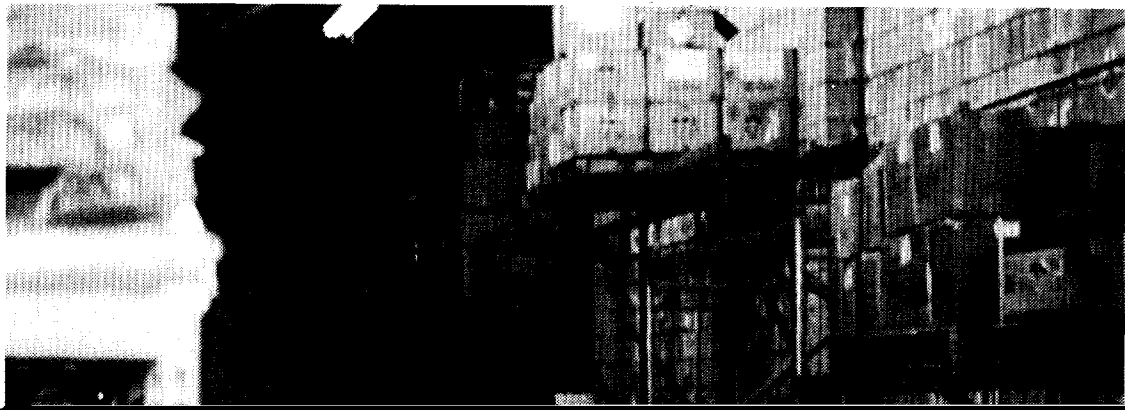
APPENDIX C
FEDERAL COMMUNICATIONS COMMISSION
ET Docket No. 93-7

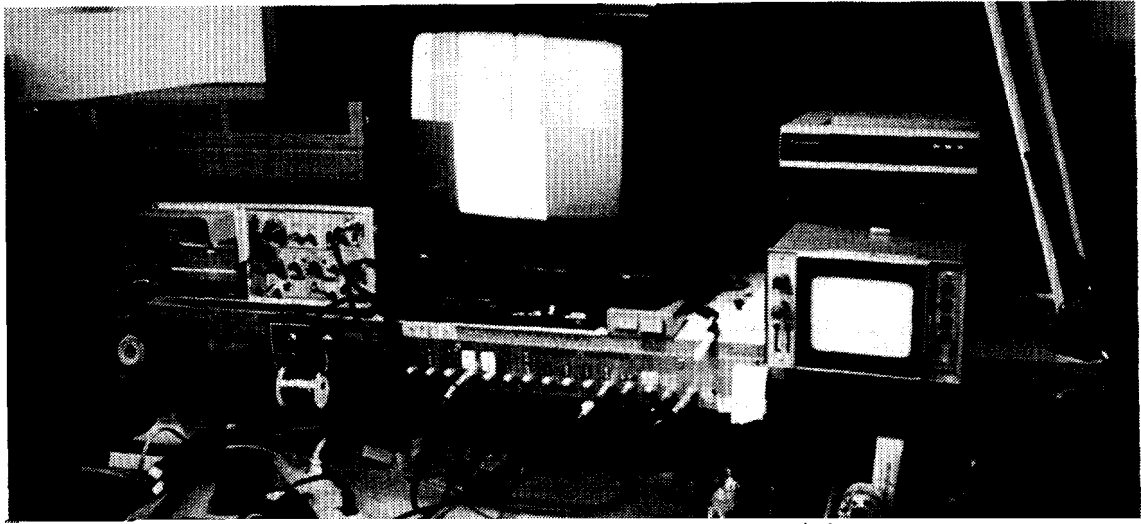
Appendix C

These pictures were taken during an October 19, 1992 raid on several warehouses in the Los Angeles area by the LAPD. More than 70,000 cable converter boxes were confiscated in the largest one-day seizure of illegal cable converter boxes in U.S. history.

The "street value" of the seized boxes exceeds \$20 million. If distributed, the lost revenue that would result from the 70,000 illegal cable boxes would exceed \$200 million each year.







APPENDIX D
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Appendix D

This information, from the owner's manual for a recent model RCA color TV with Picture in Picture, shows typical cable installations which do not inhibit advanced features. The RCA TV uses a sophisticated interface that assumes consumers will need a descrambler/converter to receive scrambled programs. The owner's manual also demonstrates the wide variety of hook-up possibilities due to the many different cable channelization plans and differences in consumer equipment capabilities.

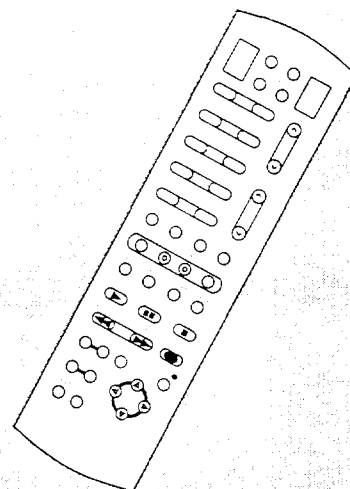


Color TV Owner's Manual

First-Time Operation

pp. 2-3

*Complete Operator's
Guide and
Reference Manual*



pp. 4-25

Monitor Panel and

Setting Up Cable Box Channel

The *CABLE CHAN* function lets you program to which channel the TV will automatically tune when you press the *CABLE* button on the remote. This is handy if you have to connect a cable box to your TV. You will no longer have to remember the output channel of the cable box because the TV will remember for you.

For example, if you connect a cable box to the TV's *CABLE/ANTENNA* connector (as shown on page 30 or 31), you will no longer have to remember to select channel 2, 3, or 4 on the TV to see what's coming from the cable box. By entering the cable box's output channel (usually 02, 03, or 04) next to the *CABLE CHAN* function, the TV will automatically tune to that channel each time you press the *CABLE* button on the remote.

This function is especially convenient if you have a remote-controllable cable box that can be operated by the *CABLE* button on the remote (as described on page 32). Pressing the

Setting Up Cable Box Channel (with or without remote)

1. Repeatedly press *MENU* to select the *SETUP MENU*, and then press + or – to display the setup functions. Repeatedly press *MENU* to select the *CABLE CHAN* function.

8:27PM 13

MUTE
VIDEO MENU
AUDIO MENU
SETUP MENU

CHAN MEM: STORED
CABLE/AIR: CABLE
VCR 1 CHAN: 91
VCR 2 CHAN: 92
CABLE CHAN: OFF

2. Enter the channel number you want to program by pressing two digit buttons on the remote control. (The channel number you enter is the channel to which the TV will tune automatically when you later press the *CABLE* button on the remote.) The TV will change to the channel you select. This will help you to confirm that it is indeed the channel you want the TV to automatically tune. Most cable boxes output their signals on either channel 02, 03, or 04.

8:27PM 03 ←

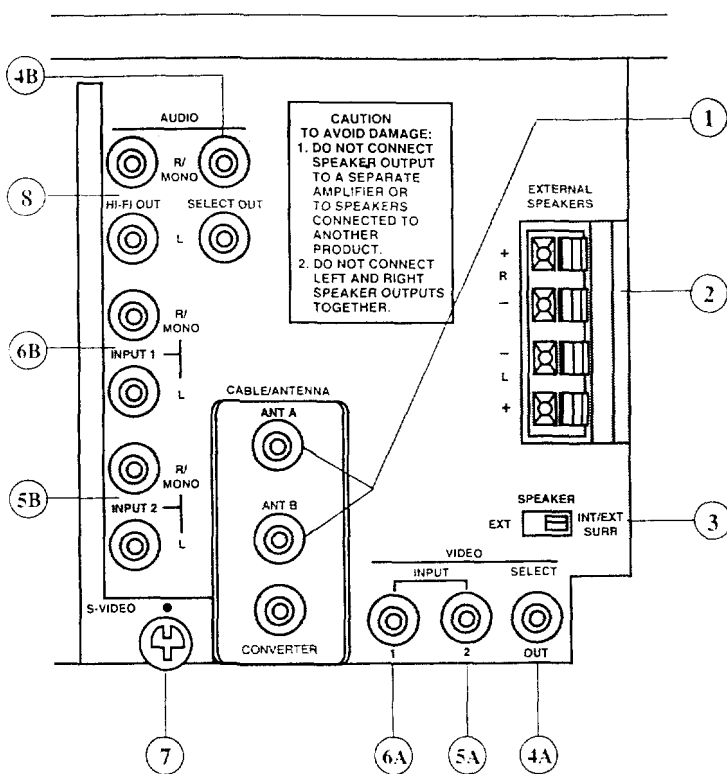
3. Press the + button to program the channel number you selected into the *CABLE CHAN* function memory.

8:27PM 03

CHAN MEM: STORED
CABLE/AIR: CABLE
VCR 1 CHAN: 91
VCR 2 CHAN: 92
CABLE CHAN: 03 ←

Note: Pressing the – button here will turn off this feature and display *CABLE CHAN: OFF* again.

Monitor Panel



① **CABLE/ANTENNA Connectors**—used when attaching a home antenna and/or a cable-TV system to your TV. Connection details are on pages 29-31.

② **EXTERNAL SPEAKERS Terminals**—permit direct connection of auxiliary speakers. Connection details are on pages 42-43.

③ **SPEAKER Switch**—when you connect additional speakers to the **EXTERNAL SPEAKERS** terminals on the TV, this switch lets you optimize the sound for the speaker location you choose.

- If you place the speakers on each side of the TV, put switch in *EXT* position. The internal audio from the TV's speakers will be muted.
- If you place the speakers behind the viewer (at the back of the room), put switch in *INT/EXT SURR* position. This maintains normal volume of the TV's internal speakers and a surround signal to rear speakers.
- Details about connecting speakers to the TV are on pages 42-43.

IMPORTANT: Always place switch in *INT/EXT SURR* position if no external speakers are used (or if external speakers are ever disconnected).

④A ④B **SELECT OUT Jacks**—provide fixed-level audio and video output from whatever is displayed on the TV screen (except signal from *S-VIDEO* connector). Provide audio and video signals suitable for recording. Can be used for several applications such as:

- VCR editing with two or three VCR's (page 35).
- recording TV programs onto a camcorder (page 38).
- recording cable-TV programs onto a VCR that is not cable-ready (page 35).
- recording audio onto an audio cassette tape recorder (page 40).

Notes

- Remember that the signal coming out of these jacks is whatever you see (and/or hear) on the TV screen. So, whatever you want to record must be displayed on the TV screen during recording. Menus, status displays, and special effects such as picture-in-picture and channel guide will not appear in the recording.
- To record from an S-VHS component connected to the *S-VIDEO* connector, you must also connect the video cable to the *VIDEO INPUT 1* jack and then select channel 91 on the TV screen.

⑤A ⑤B **INPUT 2 Jacks**—provide for direct connection of video devices (like VCR's) or compatible home computers and TV games with audio/video outputs. To see the signals from a device that is connected to the *INPUT 2* jacks, tune your TV to channel 92.

⑥A ⑥B **INPUT 1 Jacks**—provide for direct connection of video devices (like VCR's) or compatible home computers and TV games with video/audio outputs. To see the signals from a device that is connected to the *INPUT 1* jacks, tune your TV to channel 91.

⑦ **S-VIDEO Connector**—provides for direct S-VHS video connection from S-VHS VCR or camcorder.

Remember to also connect the S-VHS VCR's or camcorder's audio jack(s) to the TV's *INPUT 1 LEFT* and/or *R/MONO* audio jacks. This is necessary because S-Video cables only carry the super video (picture), not the audio signal. Connection details are on pages 35 and 38.

Signals from S-VHS devices connected to the TV's *S-VIDEO* connector and *INPUT 1* audio jack(s) can be viewed by pressing the TV button followed by 9 then 0 on the remote control—or by scanning to TV channel 90 if you have added "90" to channel memory as described on page 21).

Note: If you want to use the *SELECT OUT* jacks, remember to also connect the S-VHS component's regular video cable to the *VIDEO INPUT 1* jack, and then tune to channel 91.

⑧ **HI FI OUT Jacks**—feed volume-controlled stereo audio out from whatever is displayed on the TV screen. Allow connection of audio amplifier and let you adjust sound level with TV's remote. Connection details are on page 40.

Cable-TV Operation

Your new TV is designed to receive up to 181 channels in the U.S.A. including 125 non-scrambled cable channels (see chart below). To use this TV on a cable-TV system, confirm that the cable-TV system is properly connected to your TV. Since cable systems vary, you may wish to consult your local cable-TV company for additional information.

If your cable-TV company follows EIA/NCTA channel-identification standards, most of the channels offered by your cable company will be identified by channel numbers that are identical to those on your TV. For example, if your cable-TV system has programs on cable channel 20, you can choose this channel by selecting channel 20 on your TV.

If your cable company offers cable channels 90, 91, or 92 you can tune them by selecting the TV channels shown below.

If your cable company offers this cable channel:	Tune your TV to this channel:
90	126 ^{**}
91	127 ^{**}
92	128 ^{**}

^{**} To tune cable channels 100 through 128, press and hold number button 1 until 1-- appears on the screen. Then enter the other two numbers.

Some cable-TV companies do not follow the EIA/NCTA standards and instead assign their own channel identification. For example, some use the standard broadcast channel numbers (2-13) for channels 2-13, but identify their other channels with letters. If your cable company does not follow the EIA/NCTA standards, ask them for a cross reference that shows to which channels you should tune your TV to receive their cable-TV channels.

Not all cable-TV channels will be active on your particular cable-TV system. Also some cable companies may require the use of a decoder with their cable-TV system. Consult your cable company or local dealer for details.

Scrambled Cable-TV Channels

Some cable companies offer "premium-pay" channels in which the signal is scrambled. Descrambling these signals for normal viewing requires the use of a descrambler device (cable box) which is generally provided by the cable company.

How you connect the cable box to your TV depends upon whether or not the cable box can be controlled by remote control. The TV's remote can also control most brands of cable boxes, so if your cable box is remote controllable, you may want to connect it as shown in Diagram B on page 30 or Diagram D on page 31. Instructions for programming the TV's remote to control the cable box are on page 32.

If your cable box cannot be controlled by remote control, you will still be able to remotely control "unscrambled" channels with the connection shown in Diagram C on page 30 or Diagram D on page 31.

Since cable systems vary, you may wish to consult your local cable company for additional information.

The chart below lists the "total" channel and cable count.

Channels	Off Air	Cable
• Low VHF A-8 (Channel 01)	—	1
• VHF (Channels 2-13) ^{**}	12 ^{**}	12 ^{**}
• UHF (Channels 14-69)	56	—
• Low Midband A-5 thru A-1 (Channels 95-99) ^{***}	—	5 ^{***}
• Midband (Channels 14-22 or A-I)	—	9
• Superband (Channels 23-36 or J-W)	—	14
• Hyperband (Channels 37-64 or W+1 to W+28)	—	28
• Ultraband (Channels 65-94 and 100-125 or W+29 to W+84)	—	56
Total ^{**}	68	125

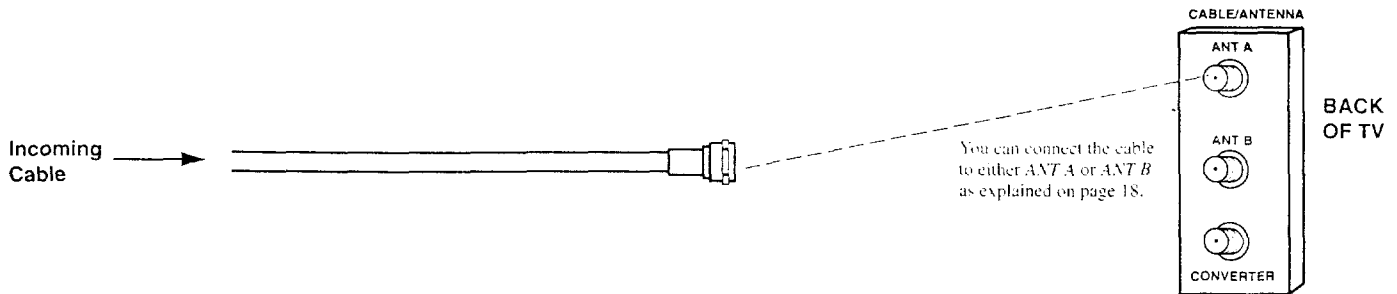
^{**} VHF is only counted once in total channel count because you can receive channels 2-13 on both "off-air" and "cable" channels. Therefore the total channel count for "off-air" and "cable" is 181 channels (68+125-12=181).

^{***} Channels 95, 96, and 97 are not applicable in Canada. Therefore the total number of channels for Canada is 178 (68+122-12=178).

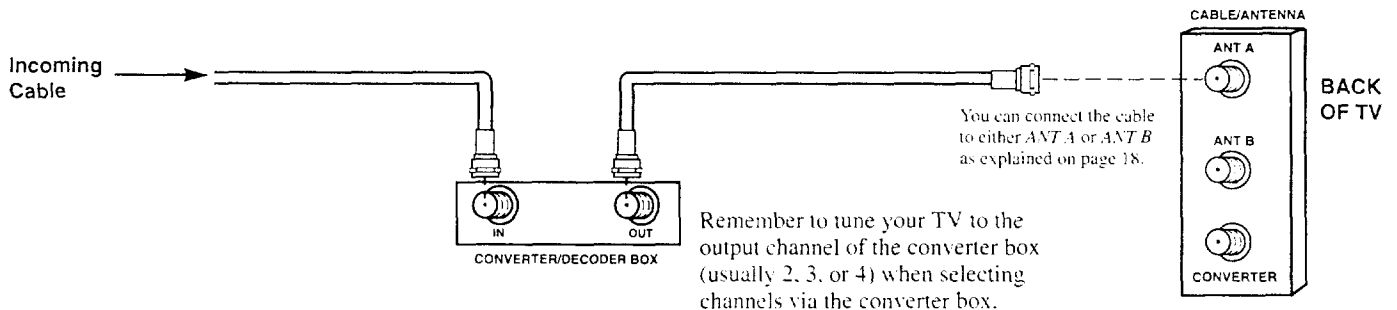
Cable-TV Connections

Follow one of these steps to connect a cable-TV system to your TV instead of a home antenna. Since cable-TV systems vary, you may wish to consult your local cable-TV company for additional information.

A Follow this diagram if your cable company does not require a converter/decoder box (no scrambled channels):



B Follow this diagram if your cable company requires a converter/decoder box that can be controlled by remote control. Most brands of remote-controllable boxes can be controlled by the remote that came packed with your TV. Details for programming your TV's remote to also control the converter/decoder box are on page 32. See diagram D if you want to connect a VCR.

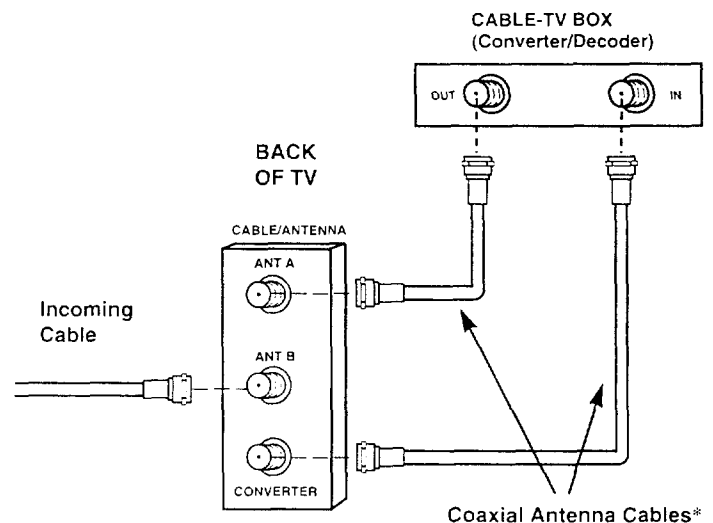


C Follow this diagram if your cable company requires a converter/decoder box that cannot be controlled by remote control.

Scrambled Cable-TV Channels

Some cable-TV decoders require that you manually switch from regular to scrambled channels on the decoder whenever you wish to view the premium pay channels. By connecting the decoder to the *ANT A* input and *CONVERTER* output on the TV as shown here, you can switch between the scrambled and unscrambled channels using the remote control.

To change the incoming signal from *ANT A* to *ANT B*, simply press the *ANT* (Antenna) button on the remote. Each time you press the *ANT* button, the channel numbers will change color on the screen to show which antenna signal you are watching.

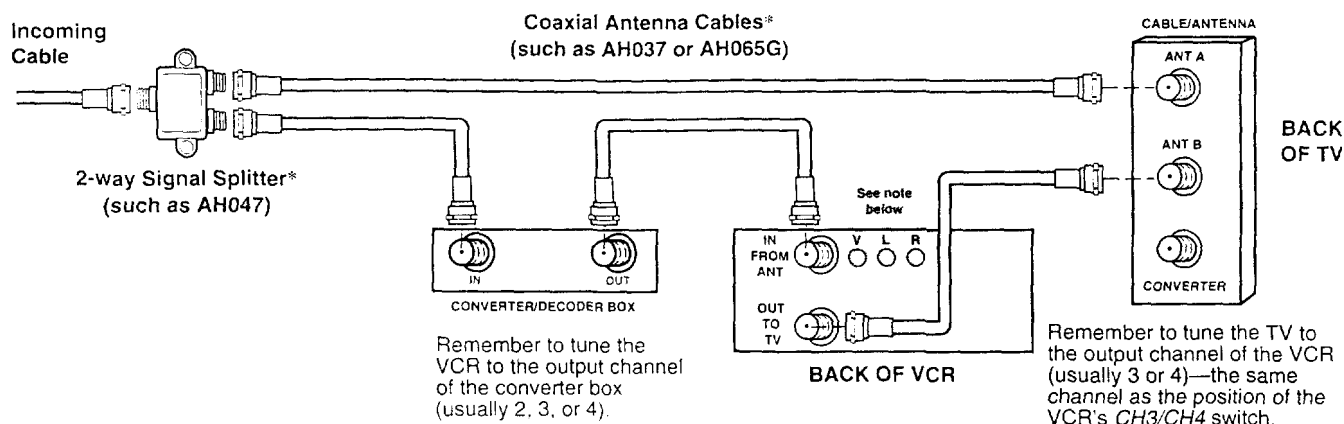


Nonscrambled cable channels will come thru the *ANT B* input whenever the channel numbers are yellow. The scrambled channel from the decoder box will come thru the *ANT A* input whenever the channel numbers are blue. Be sure to leave the decoder box set to the scrambled channel, and remember to tune your TV to the output channel of the converter box (usually 2, 3, or 4).

* Optional accessories are available from most RCA dealers and electronics supply stores.

Cable-TV Connections (continued)

D Follow this diagram if your cable company requires a converter/decoder box for premium channels and you also want to connect a VCR.



Most cable companies that require use of a converter/decoder box only require the box for scrambled premium channels like HBO or Showtime. All the other cable-TV channels can usually be viewed without the converter box. Therefore, by using a signal splitter, you can send the incoming cable-TV signals directly to the TV and also thru the converter/decoder box and VCR as shown above.

You can easily switch between the signals coming into the *ANT A* jack and the *ANT B* jack by pressing the *ANT* button on the remote control. The channel numbers will change color to let you know which antenna signal you are watching. When the numbers are blue, you are seeing the *ANT A* signals. When the numbers are yellow, you are seeing the *ANT B* signals.

The cable-TV channels that are not scrambled can then be seen whenever the TV is receiving the *ANT A* signals. The cable-TV channels that are scrambled can then be seen thru the converter box and then thru the VCR whenever the TV is receiving the *ANT B* signals. Most VCR's will feed the signal thru their antenna jacks even when the VCR is turned off. This allows you to watch scrambled channels from the converter box without having to turn on the VCR.

This connection can be useful because it will let you record a scrambled channel on the VCR at the same time you are watching a non-scrambled channel thru the *ANT A* jack on the TV.

For picture-in-picture viewing, be sure to also connect the audio and video cables from the VCR to the TV as shown on pages 34-35. The VCR must be turned on and tuned to the output channel of the cable box (usually 2, 3, or 4) for picture-in-picture viewing.

Note: If you have a stereo VCR, be sure to also connect the *AUDIO* and *VIDEO OUT* jacks on the VCR to the *AUDIO* and *VIDEO IN* jacks on the TV as shown on page 34. The additional audio/video connections are required for picture-in-picture operation and for stereo playback from the VCR. To see the signals from the VCR that are going into the *INPUT* jacks, select TV channel 91 if you connected the VCR to the *INPUT 1* jacks or select channel 92 if you connected the VCR to the *INPUT 2* jacks. Select TV channel 90 if you have an S-VHS VCR connected to the TV's *S-VIDEO* connector.

* Optional accessories are available from most RCA dealers and electronics supply stores.

VCR Connections (continued)

Special Recording onto VCR

(This connection only allows you to record on the VCR whatever is currently being displayed on the TV screen.)

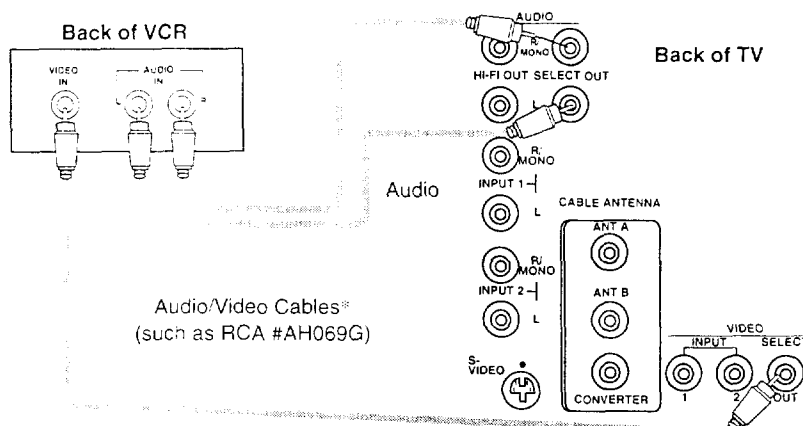
This is not a common application for recording with your VCR, but you may find it useful in certain situations. This connection will let you record onto the VCR whatever is being displayed on the TV screen such as a TV program. You'll also be able to record signals from another VCR (or similar device) that is connected to the TV's *INPUT 1* or *2* jacks.

The TV must remain turned on during recording. If you change channels on the TV, the channel change will be recorded on the VCR tape unless you pause the VCR during recording.

Because your TV is cable-compatible, this application may be used to record cable-TV programs from the TV onto a VCR that is not cable-compatible.

You may also want to use this connection to dub or edit VCR tapes with two or three VCR's. By connecting one VCR (or camcorder) to the *INPUT 1* jacks and another VCR (or camcorder) to the *INPUT 2* jacks, you'll be able to selectively edit and record whatever is playing on the TV screen on to a third VCR (or camcorder) connected as shown here to the *SELECT OUT* jacks.

If you connect a surveillance system to your monitor, you'll be able to record what the camera is displaying on the TV screen by connecting a VCR (or camcorder) to the *SELECT OUT* jacks as shown here.



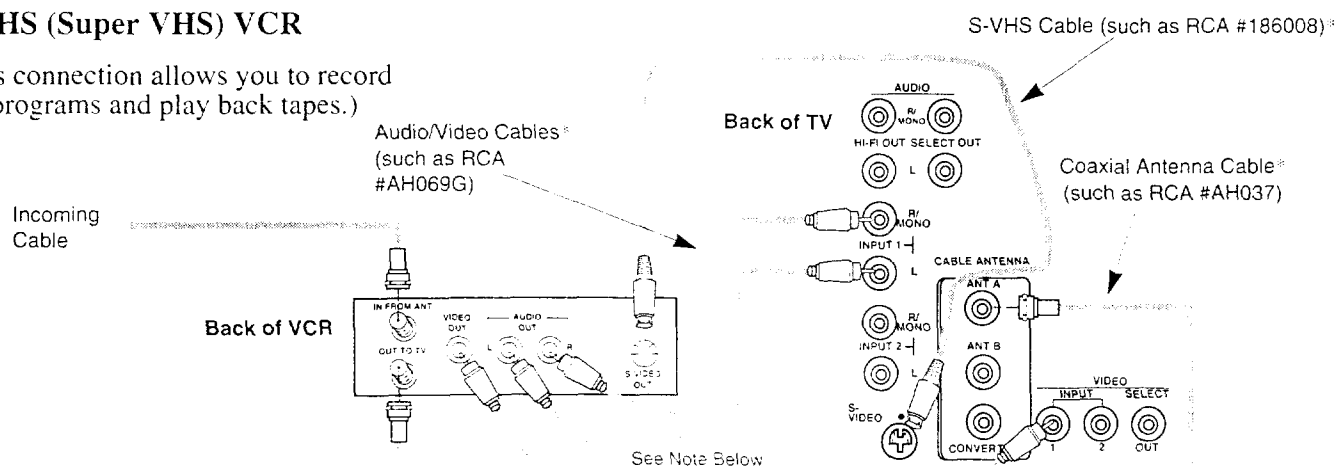
Just remember that you'll be able to record whatever is being displayed on the TV screen. To see the signal from a device connected to the *INPUT 1* jacks, select channel 91. Select channel 92 to see the signal from a device connected to the *INPUT 2* jacks.

Notes: Signals from the *S-VIDEO* connector do not come thru the *SELECT OUT* jacks. To record from an *S-VHS* component, remember to also connect the regular video cable to the *VIDEO INPUT 1* jack and then tune to channel 91.

Most menus and status displays and special effects like picture-in-picture and channel guide will not appear in the recording.

S-VHS (Super VHS) VCR

(This connection allows you to record TV programs and play back tapes.)



Shown here is the preferred method of connecting your S-VHS VCR to your TV. If your cable company requires a decoder box for premium channels, refer to page 31.

Connect the *S-VIDEO OUT* connector on the back of the VCR to the *S-VIDEO* connector on the back of your TV using an S-VHS cable. Remember to connect the audio cables from the VCR to the *INPUT 1 LEFT* and *R/MONO* jacks on the back of the TV. The S-VHS cable carries only video.

* Optional accessories are available from most RCA dealers and electronics supply stores.

Note: Remember to also connect the video cable if you plan to use the *SELECT OUT* jacks for recording. When recording from *SELECT OUT* jacks, tune the TV to channel 91 to see the signal from the S-VHS VCR.

Operation:

- If the S-VHS VCR is connected as shown above, tune the TV to channel 90 to view whatever the VCR is playing. The word *S-VIDEO* will appear on the TV when you select Channel 90.
- You can program your TV to automatically select channel 90 when you press the *VCR1* or *VCR2* button. Details are on page 22.